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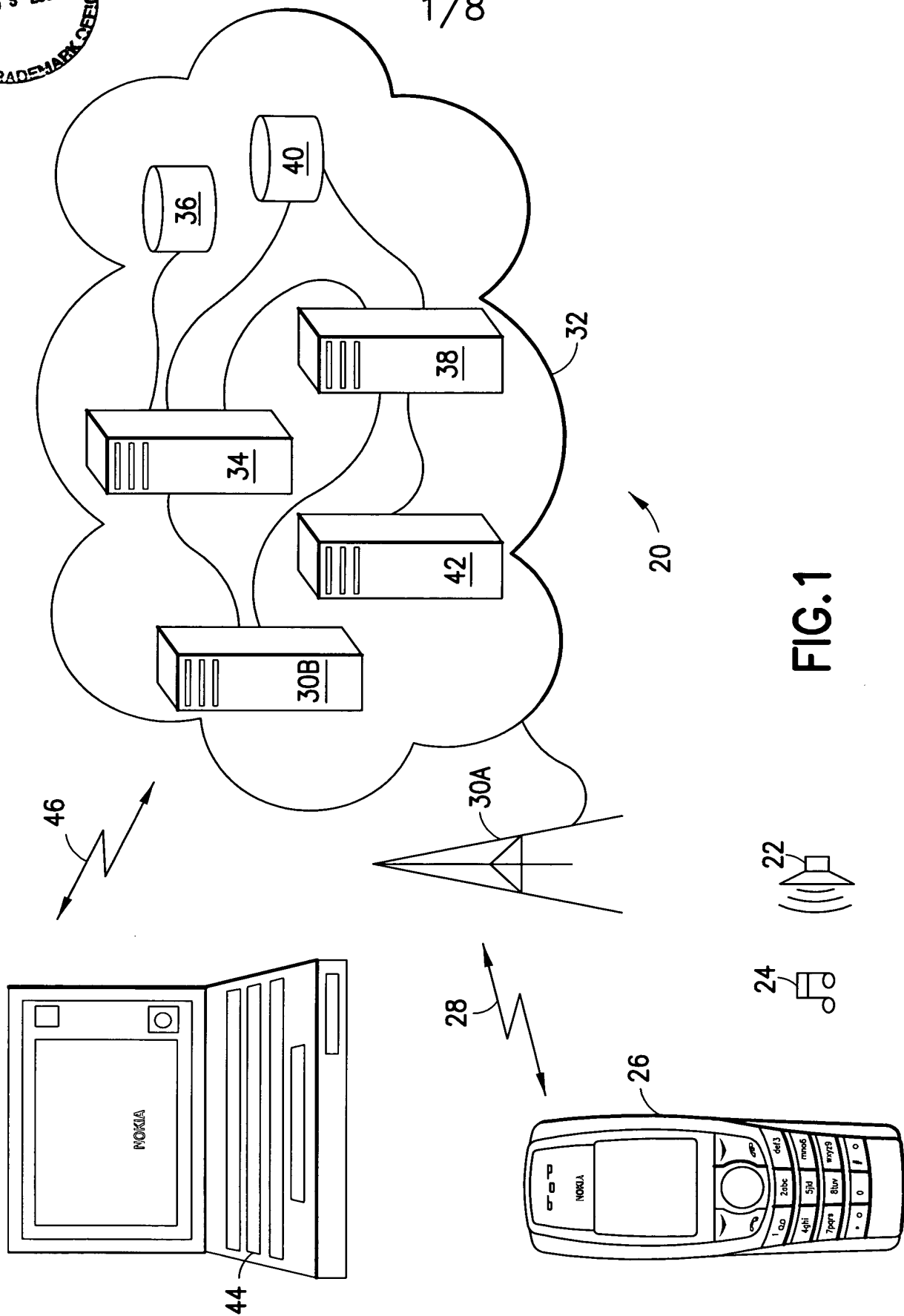


FIG.1

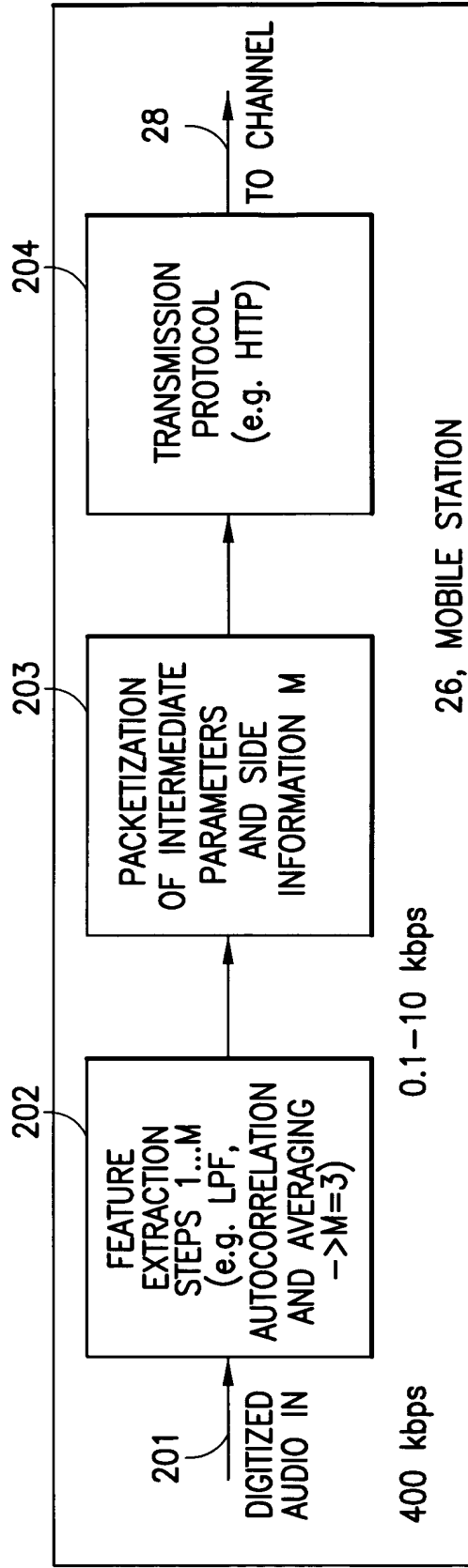


FIG.2A

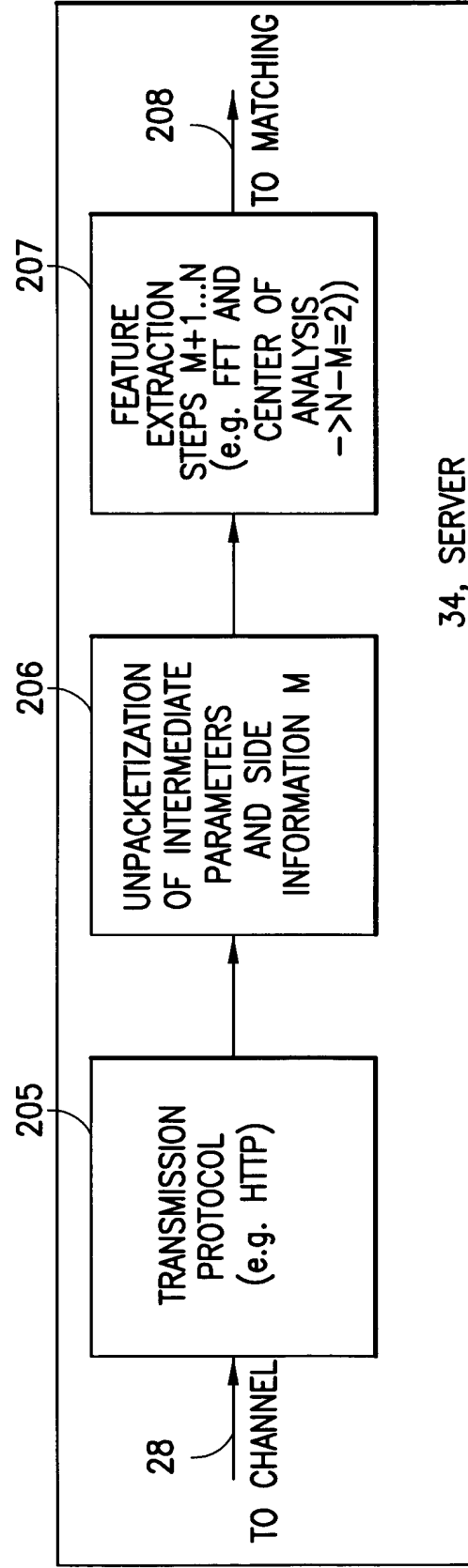


FIG.2B



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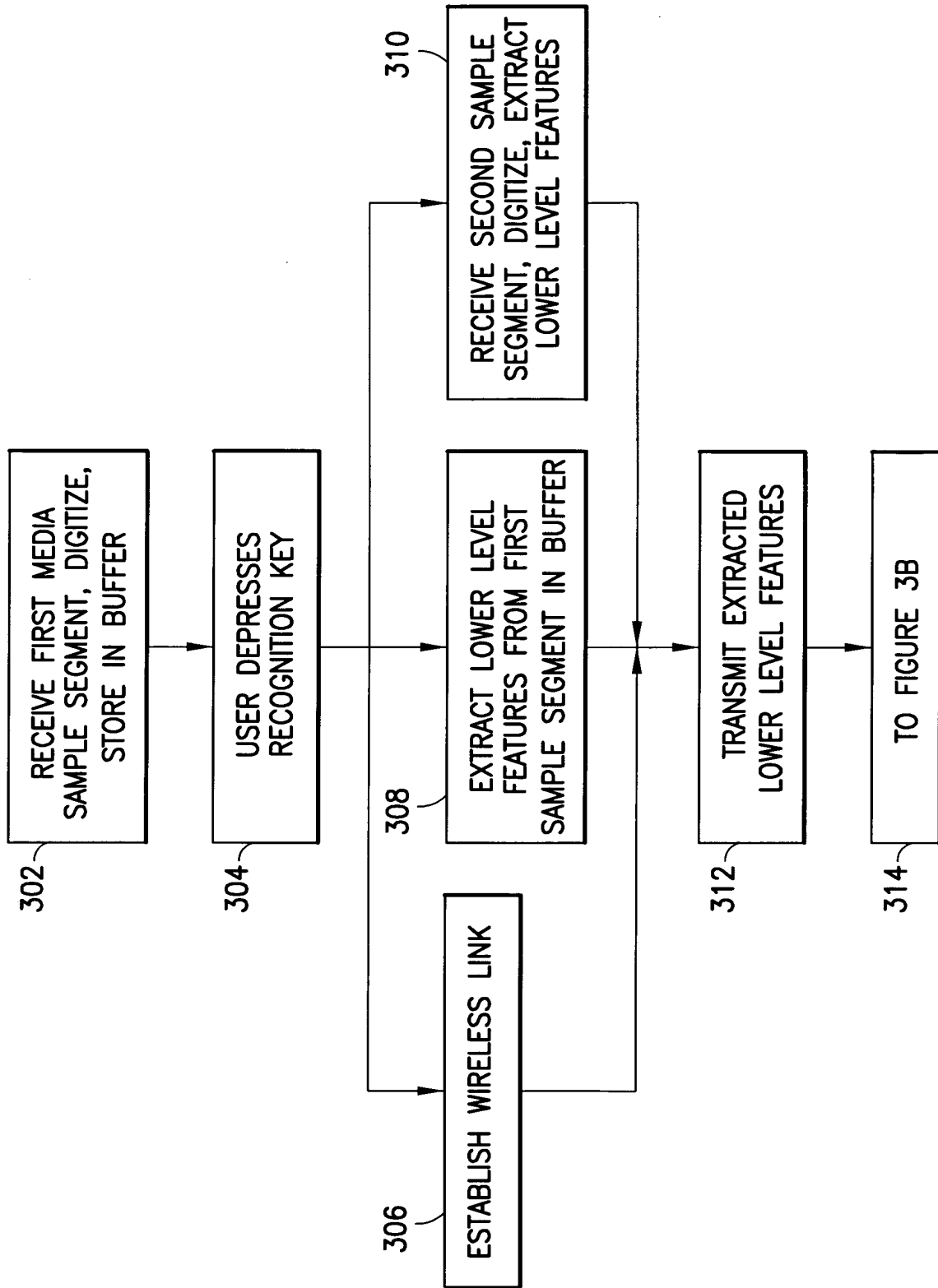


FIG. 3A

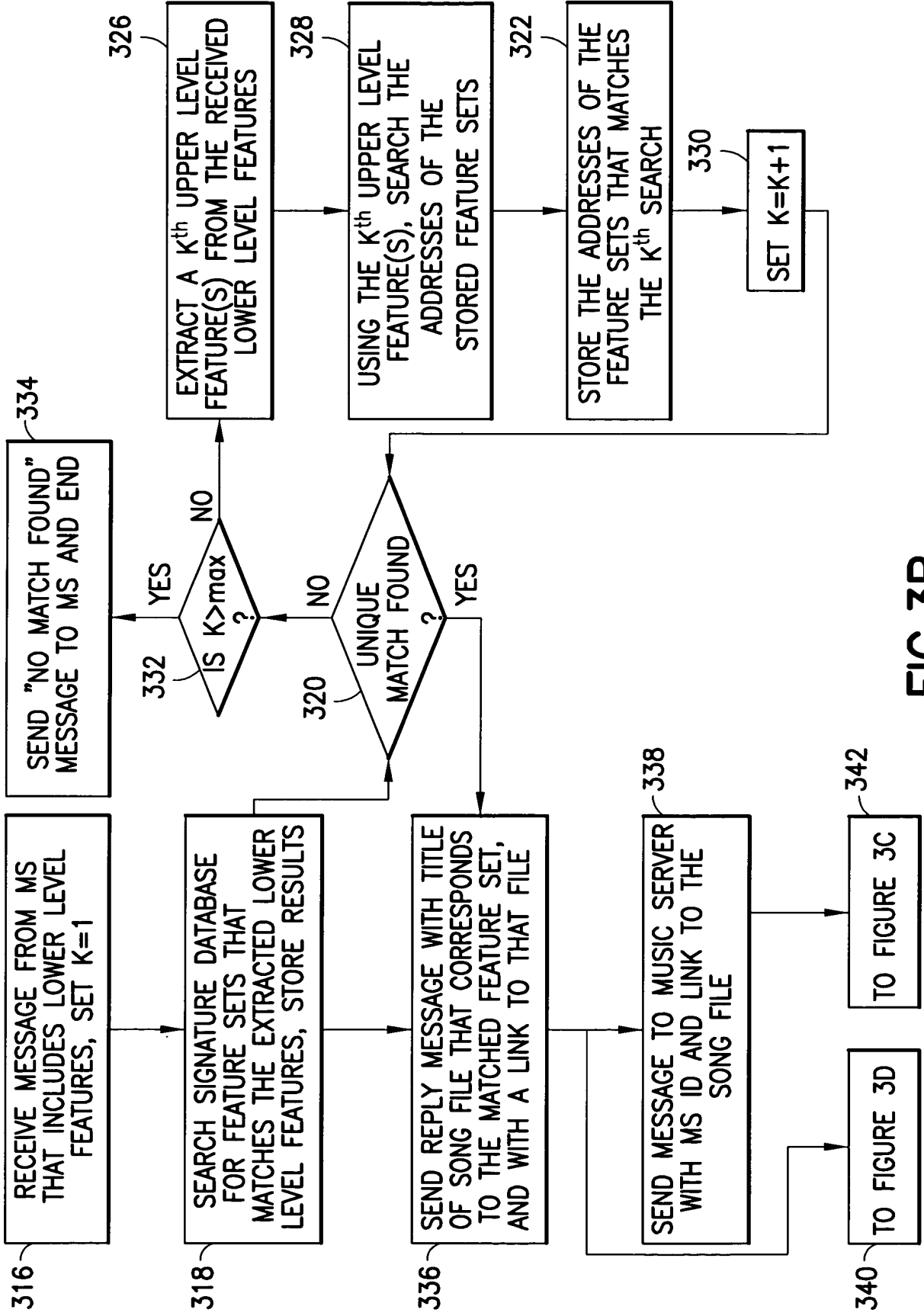


FIG. 3B



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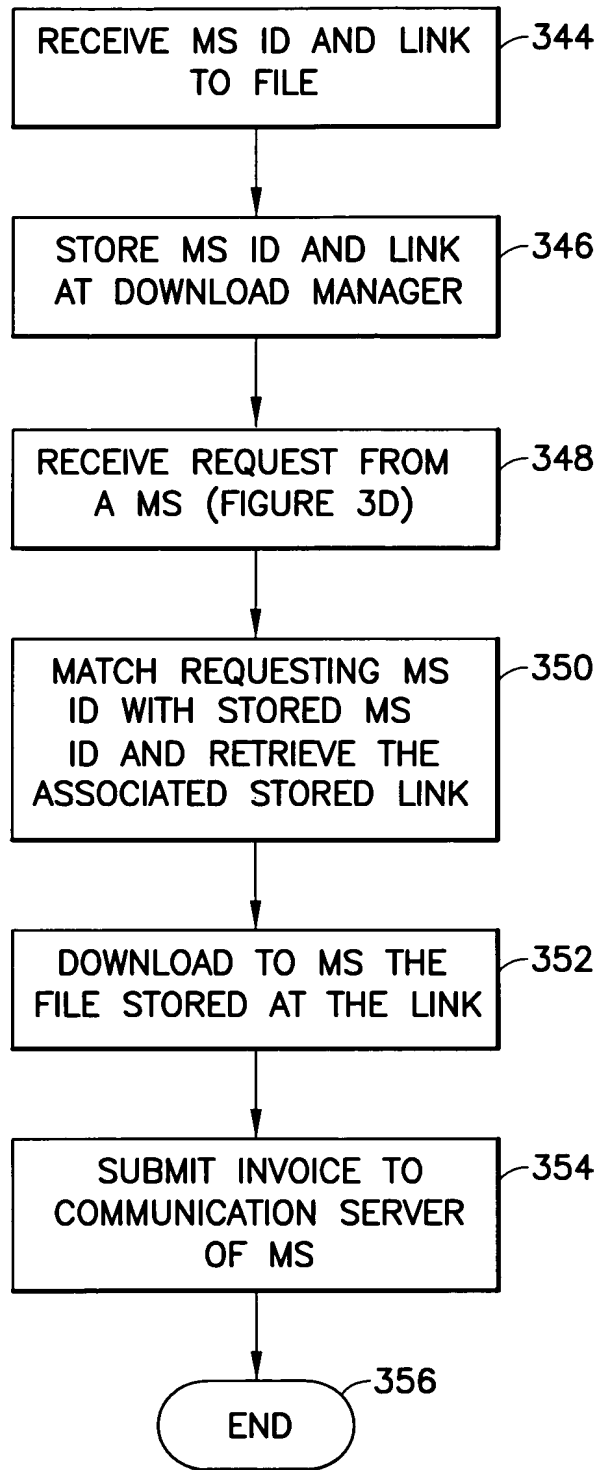


FIG.3C



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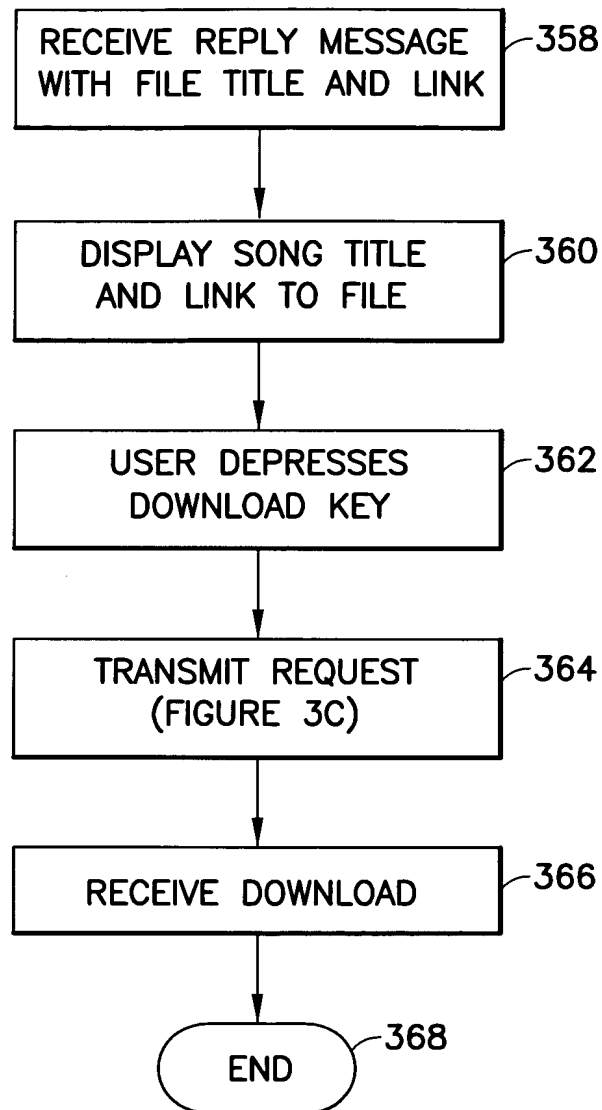


FIG.3D



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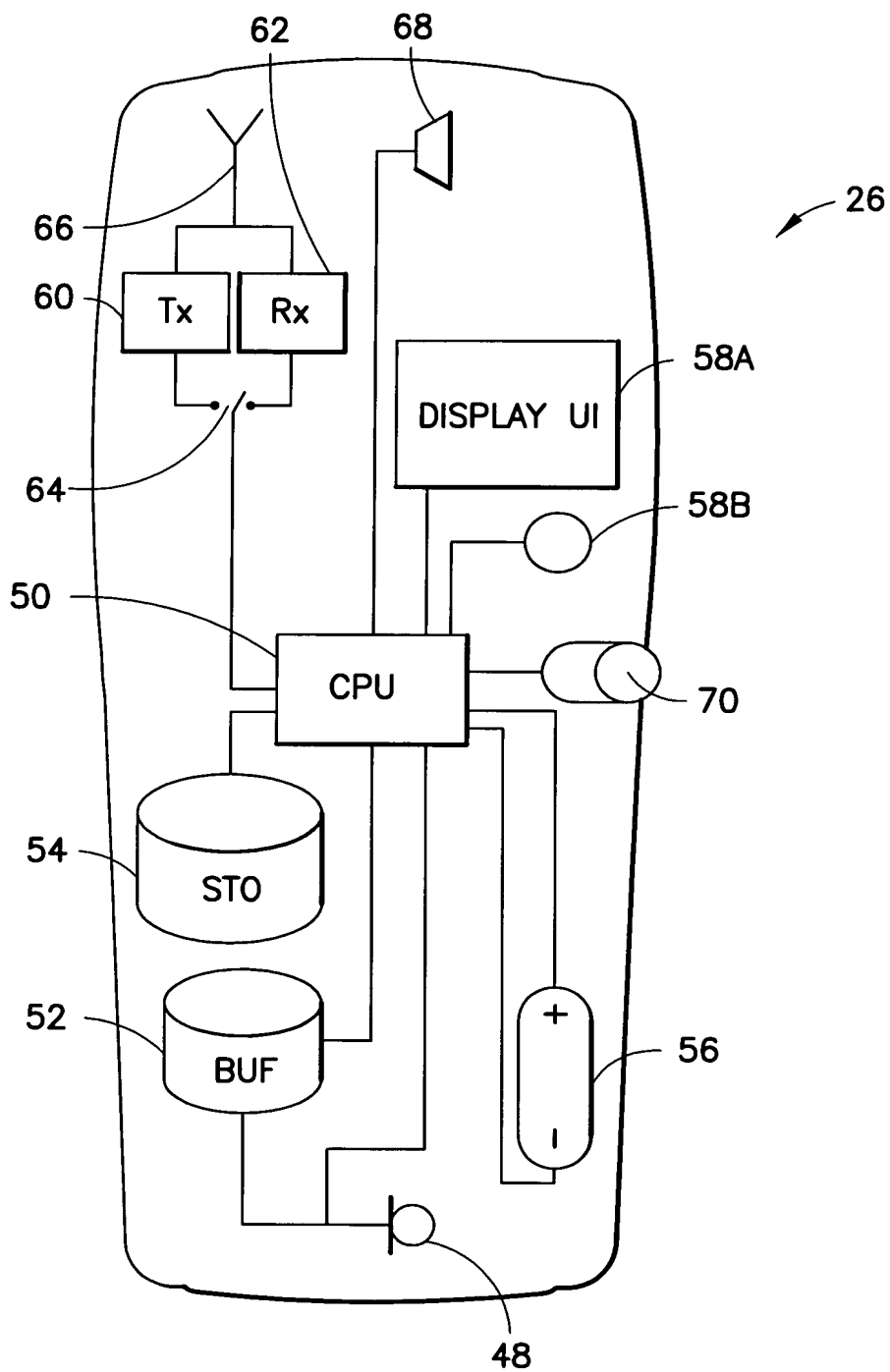


FIG.4



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HEADSTART OF MUSIC RECOGNITION → FASTER RESULT

MUSIC PLAYING 501



USER LISTENING

504

PUSHING  
RECOGNITION  
BUTTON

RECOGNITION WITHOUT  
PRE-BUFFERING

$\Delta T$

RECOGNITION WITH PRE-BUFFERING

$\Delta T$

506

508

RECOGNITION  
RESULT COMES  
EARLIER,  
512

510

FIG.5